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Observing Parenting in the Context of Maternal Borderline Personality Disorder and Adolescent Symptomatology

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I am submitting herewith a thesis written by Rebecca Meredith Mahan entitled "Observing Parenting in the Context of Maternal Borderline Personality Disorder and Adolescent Symptomatology." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

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Observing Parenting in the Context of Maternal Borderline Personality Disorder and Adolescent Symptomatology

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Abstract

Borderline personality disorder (BPD) is a severe and chronic disorder characterized by a distorted sense of self, fear of abandonment, and difficulties forming and maintaining relationships. Two empirically supported developmental antecedents of offspring borderline features include invalidating parenting practices and maternal BPD. Recent research found that parental psychological control is one type of invalidating parenting behavior that is related to maternal borderline symptoms. The current study observed maternal psychologically controlling behaviors among a sample of 56 adolescents ages 14-18 and their mothers, who were divided into groups of those diagnosed with BPD (n = 28) and those who did not have the disorders (n = 28). Results revealed that maternal psychological control was positively associated with mothers' borderline features. Further, mothers with BPD used more psychological control compared to normative mothers. Post-hoc findings also demonstrated that maternal psychological control used by mothers with BPD differed based on adolescent gender. Additionally, analyses investigated at adolescent outcomes and revealed a positive correlation between maternal psychological control and adolescent borderline features and internalizing and externalizing symptoms. The empirical and clinical implications of the associations of psychological control with both maternal BPD and adolescent outcomes are discussed.

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CHAPTER I

Introduction and General Information

Borderline personality disorder (BPD) is a severe and chronic disorder characterized by a distorted sense of self, fear of abandonment, and difficulties forming and maintaining relationships (American Psychiatric Association, 2013). The disorder is commonly diagnosed in women of childbearing age (Zanarini et al., 2007) and can be assessed as a categorical diagnosis or along a continuum of self-reported borderline features (affective instability, identity problems, negative relationships, and self-harm; Morey, 1991; Stein, Pinsker-Aspen, & Hilsenroth, 2007). Given that there is a higher rate of BPD diagnosis among first degree relatives of individuals with BPD (White, Gunderson, Zanarini, & Hudson, 2003), the offspring of mothers with BPD are at risk for developing the disorder themselves. This makes offspring a good population in which to study putative precursors to BPD (Lenzenweger & Cicchetti, 2005). In line with the biosocial (Linehan, 1993) and object relations (Masterson & Rinsley, 1975) theories, two empirically supported developmental antecedents of offspring borderline features include invalidating parenting practices (Soloff & Millward, 1983; Zweig & Paris, 1991) and maternal BPD (Feldman et al., 1995; Goldman, D'Angelo, & DeMaso, 1993; Johnson et al., 1995). Thus, studying particular parenting behaviors of mothers with BPD may inform how environmental, in addition to genetic, factors contribute to offspring vulnerability for BPD and other negative outcomes.

Due to the nature of this disorder, maternal BPD may negatively interfere with the ability to parent effectively. Beginning with infancy, mothers with BPD have been found to be more intrusively insensitive with their infants at 2 and 13 months of age in

comparison to normative mothers (Crandell, Patrick, & Hobson, 2003; Hobson, Patrick, Crandell, García–Pérez, & Lee, 2005). In early childhood, children of mothers with BPD have been found to tell stories involving more negative mother-child expectations than children of normative mothers, thought to reflect a child's internal beliefs of the expectations and attitudes of the self and the caregiver-child relationship (Macfie & Swan, 2009). Using the same sample as the current study, Frankel-Waldheter, Macfie, Strimpfel, and Watkins (2015) found that mothers with BPD were less likely to promote and more likely to inhibit relatedness with their adolescents and were marginally less likely to promote autonomy in comparison to normative mothers. In summary, mothers with BPD may struggle with different aspects of parenting that may negatively impact their children's development.

The nature of parental psychological control, another maladaptive parenting behavior, is to invalidate a child's experience in such a way that the child's beliefs conform better to the parent's expectations and desires than to the child's needs (Barber, 1996). Parental psychological control has been operationalized in several ways. The first definition was proposed by Schaefer (1965) and includes parental intrusiveness, parental direction, and control through guilt. Subsequent research (e.g., Fauber, Forehand, Thomas, & Wierson, 1990; Steinberg, 1990) led to understanding psychological control as conceptually different from other parenting constructs (e.g., autonomy granting) that are aggregated in the Schaefer (1965) definition. Barber (1996) therefore operationalized psychological control as the manipulation of a child's behavior specifically through constraining verbal expressions, invalidating feelings, personally attacking the child, inducing guilt, withdrawing love, and behaving in an erratic emotional manner. It was

later found that the Barber (1996) conceptualization of psychological control is distinct from other types of parenting practices (e.g., autonomy granting; Barber & Harmon, 2002; Silk, Morris, Kanaya, & Steinberg, 2003; Soenens, Vansteenkiste, & Sierens, 2009) and independently contributes to aspects of child development (e.g., internalizing problems; Barber, Stolz, & Olsen, 2005; Garber, Robinson, & Valentiner, 1997; Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005). While there are a number of additional theoretical and conceptual understandings for psychological control (e.g., self-determination theory; Soenens & Vansteenkiste, 2010), the current study will utilize the Barber (1996) operationalization of psychological control and make it clear when research reviewed employs an alternate conceptualization.

It has been theorized that psychological control may occur during conditions of parental stress, particularly during a time of increasing child independence (Kerig, 2005). Masterson and Rinsley (1975) suggested that a mother who feels insecure and threatened by her child's maturing autonomy might employ manipulative and invalidating behaviors in order to reaffirm her child's dependence. Maternal intrusiveness on the child's self can occur across development, as an intrusively insensitive mother may place strict regulations on an infant's attempts at motor movements, inhibit a toddler's exploration, or interfere with a growing child's ability to reason (Barber, 1996). According to Barber (1996), early intrusion in infancy and early childhood may be analogous to an abstract conceptualization of psychological control in adolescence; thus, perhaps intrusiveness and insensitivity in infancy develop into invalidating, constraining, and manipulative behaviors used by a psychologically controlling mother with her adolescent. While psychological control may occur across development, it is largely studied during the

developmental period of adolescence, as psychologically controlling behaviors may interfere with the exploration that is required to achieve identity formation (Barber, 1996), an essential developmental task of this period (Erikson, 1968).

According to the biosocial theory proposed by Marsha Linehan (1993), experiencing an invalidating environment may interact with biologically-based emotional vulnerability in increasing the possibility of developing BPD, as well as other comorbid conditions such as anxiety and depression (Bradley, Zittel Conklin, & Westen, 2005) and substance dependence (Thorberg & Lyvers, 2006). There are three strands of recent research focused on offspring outcomes in relation to invalidating experiences, namely environments characterized by maternal BPD and parental psychological control. First, given the evidence for familial intergenerational transmission of BPD from mother to child (Barnow et al., 2013; Reinelt et al., 2013), the offspring of mothers with BPD are at risk for developing the disorder themselves. Children of mothers with BPD have also been found to display more behavior problems (e.g., internalizing and externalizing symptoms) than children of normative mothers (Barnow, Spitzer, Grabe, Kessler, & Freyberger, 2006; Weiss et al., 1996). Second, maternal psychological control has been found to be predictive of adolescent depression and antisocial behavior (Barber et al., 2005; Barber, Xia, Olsen, McNeely, & Bose, 2012). Moreover, undergraduate students' reports of parental psychological control were associated with self-reported BPD symptoms (Miller et al., 2010). Clearly, both maternal BPD and maternal psychological control influence offspring symptomatology.

A third facet of research focuses on the association between maternal BPD and psychological control. In an economically diverse and largely African American sample,

Zalewski et al. (2014) found that mothers' self-reported BPD symptoms (assessed using the 9-item International Personality Disorder Examination screener; Loranger, Sartorius, Andreoli, & Berger, 1994) were associated with adolescent girls' reports of maternal psychological control as defined by Schaefer (1965). This study reveals an important association between two maternal characteristics that contribute to an invalidating environment. Accordingly, it is known that maternal borderline features and psychological control positively associate with one another and that each is associated with offspring behavior problems. However, there has been limited exploration of how maternal BPD relates to adolescent symptomatology, specifically adolescent borderline features, in terms of parenting behaviors.

It has been theorized that offspring of parents with BPD often experience emotionally invalidating environments that can contribute to later dysfunction (Linehan, 1993). Research has been conducted to support this hypothesis. For example, Reinelt et al. (2013) found that maladaptive mother-child interactions (e.g., overprotective and rejecting parenting) accounted for the longitudinal mother-child transmission of borderline symptoms. Further, adolescents with high borderline symptoms reported having mothers who are less emotionally warm and more overprotective and rejecting compared to reports of healthy adolescents (Schuppert, Albers, Minderaa, Emmelkamp, & Nauta, 2012). The construct of psychological control may offer an additional type of invalidating parenting that could partially explain the association between maternal BPD and adolescent symptomatology. Though based on cross-sectional data, given the empirical relationship between psychological control and maternal BPD, as well as the relationship between both these constructs and adolescent symptomatology, it was

expected that maternal psychological control would serve a mediational role in the relationship between maternal borderline features and adolescent behavior problems and borderline features. Because it was also expected that psychological control would be more likely to be displayed by mothers with BPD in comparison to normative mothers, confirming this pathway would be important for designing preventive interventions. For example, it would be helpful to provide empirical support for understanding whether offspring may benefit from interventions targeting not only maternal BPD, but also maladaptive maternal parenting behaviors (Stepp, Whalen, Pilkonis, Hipwell, & Levine, 2012; Zalewski & Lengua, 2012).

The Current Study

The current study first aimed to extend the examination of the relationship between maternal borderline symptoms and psychological control found by Zalewski et al. (2014) among a largely African American community sample of mothers and their daughters. Specifically, the current study tested for group differences between mothers with BPD and normative controls in their use of psychological control among a low socioeconomic, largely Caucasian sample of adolescent girls and also boys. Additionally, 51% of mothers in the current sample were diagnosed with BPD, which is greater than the 8% of mothers found to be in the clinical range of borderline symptoms assessed by Zalewski et al. (2014). Moreover, BPD was assessed as both a categorical diagnosis and along a continuum of self-reported borderline features, as defined by Morey (1991), rather than assessing borderline symptoms as done by Zalewski et al. (2014).

Second, the current study aimed to examine the relationship between maternal borderline features and psychological control using observational assessment of

psychological control rather than an adolescent self-report questionnaire. Parent-child observation can provide an additional perspective on how a child might experience a mother's psychologically controlling behaviors. Additionally, psychological control was assessed according to the operationalization by Barber (1996), whereas Zalewski et al. (2014) used the older Schaefer (1965) definition, which includes autonomy granting now thought to be a separate construct.

Third, the current study aimed to explore the relation of maternal psychological control with adolescent symptomatology, specifically internalizing and externalizing symptoms as well as adolescent borderline features. Fourth, the mediational role of maternal psychological control in the relationship between maternal borderline features and adolescent behavior problems was examined. Finally, the current study aimed to investigate whether there are gender differences in the relationship between maternal borderline features, maternal psychological control, and adolescent symptomatology. Findings on the relationship between maternal psychological control and male versus female offspring symptomatology are inconsistent (Barber & Harmon, 2002), though it has been argued that girls are more likely to respond to psychological control with more internalizing symptoms than boys (Rogers, Buchanan, & Winchell, 2003). Further, adolescent BPD diagnosis in females is characterized by internalizing and emotionality issues that resemble the adult diagnosis, whereas adolescent BPD diagnosis in males involves behavioral disinhibition, externalizing symptoms, and anger (Bradley et al., 2005). Based on empirical data, it was expected that, in the context of maternal borderline features, adolescent outcomes related to maternal psychological control would

manifest more as internalizing symptoms and borderline features in females and externalizing symptoms in males.

Because Major Depressive Disorder (MDD) is often comorbid with BPD (Zanarini et al., 1998) and has deleterious effects on child and adolescent development (Downey & Coyne, 1990), current maternal MDD diagnosis was controlled for in tests of group differences. It was hypothesized that 1) mothers with BPD would exhibit more psychological control than would normative comparisons; 2) mothers' borderline features (affective instability, identity problems, negative relationships, and self-harm) would positively correlate with maternal psychological control; 3) maternal psychological control would positively associate with adolescent borderline features and internalizing and externalizing symptoms; 4) maternal psychological control would mediate the relationship between mothers' borderline features and adolescents' internalizing and externalizing symptoms and borderline features; and 5) adolescent gender would moderate the mediation.

CHAPTER II

Method

Participants

The sample consisted of 56 adolescents age 14-18 years old (M_{age} = 15 years 5 months, *SD* = 1 year 2 months) and their biological mothers. There were 28 mothers diagnosed with BPD and 28 matched normative comparison mothers with no current diagnosis of an Axis I or II disorder. Fifty percent of the adolescent sample was female in both the BPD and normative comparison groups. The sample was low-socioeconomic status and had ethnic backgrounds that reflect those of the local community, 92% Caucasian, 7% ethnic minority, and 4% Hispanic. See Table 1.

All participants were recruited as part of a larger study from a five-county region in the Southeast United States that included both rural and urban areas. Mothers with BPD were recruited through presentations explaining both the study and the treatment of BPD that were presented to clinicians. Therapists were encouraged to give brochures describing the study to clients exhibiting symptoms of BPD. Brochures were also handed out to mothers recruited for the comparison group at the local Boys and Girls Club, sporting events, and parks. In addition, mothers with BPD and mothers in the comparison group were also recruited through flyers posted in the community. Both mothers and adolescents were given gift certificates as compensation for their participation.

Procedures

Participants first scheduled a home visit or, if requested, a meeting at a public place of the mother's choosing. During the home visit, two research assistants administered informed consent and assent, a demographic interview, and a self-report

screener for BPD symptoms to the mother. The mother and adolescent then scheduled a laboratory visit, during which time a structured clinical interview was conducted with the mother, and the mother and adolescent completed self-report questionnaires on borderline features and topics of conflict and a videotaped discussion task. Adolescents also completed a self-report questionnaire of their own behavioral problems. Additionally, teachers of adolescent participants completed questionnaires about the adolescents' behaviors at school.

Measures

Demographics. The Mt. Hope Family Center's Interview (Mt. Hope Family Center, 1995) was used with mothers to assess demographic information. See Table 1 for details.

Major Depressive Disorder. The Structured Clinical Interview for DSM-IV-TR Axis I Disorders (SCID-I; First, Gibbon, Spitzer, & Williams, 1996) is a semi-structured interview which was administered to mothers by a licensed clinical psychologist to assess for DSM-IV Axis I diagnoses. The SCID-I has been found to have good inter-rater reliability kappa scores for Major Depression Disorder (MDD), ranging between 0.66 and 1.00 (First, Gibbon, Spitzer, & Williams, 2002; Lobbestael, Leurgans, & Arntz, 2011; Zanarini et al., 2000).

Borderline Personality Disorder. The Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First, Gibbon, Spitzer, Williams, & Benjamin, 1997) is a semi-structured interview used to diagnose Axis II personality disorders. Support has been found for the inter-rater reliability and internal consistency for the structural assessment of BPD diagnosis based on DSM-IV criteria using the SCID-II

(Lobbestael et al., 2011; Maffei et al., 1997). Following the completion of a self-report screener for BPD, a licensed clinical psychologist administered the SCID-II interview with mothers to assess for maternal BPD diagnosis.

Borderline features. The Personality Assessment Inventory (PAI; Morey, 1991) is a self-report inventory that was administered to mothers to evaluate personality characteristics and psychopathology, including borderline features. The Borderline Features Scale of the PAI (PAI-BOR) consists of 24 items rated on a 4-point Likert scale as *false*, *slightly true*, *mainly true*, or *very true*. The PAI-BOR includes a total borderline features score made up of four subscales of common factors in BPD: affective instability, identity disturbance, negative relationships, and self-harm. According to Morey (1991), these subscales assess for difficulty managing anger and frequent mood swings (*BOR-A*); absence of a sense of purpose, uncertainty about important life issues, and identity instability (*BOR-I*); unstable and intense, stormy interpersonal relationships (*BOR-N*); and impulsivity related to potential harm such as substance abuse or risky sexual behaviors (*BOR-S*), respectively. The PAI-BOR has been well validated as a useful method of evaluating borderline specific pathology, with support for criterion (Stein et al., 2007) and convergent validity (Kurtz & Morey, 2001) with BPD diagnosis, as well as high internal consistency and high test-retest reliability correlations for total borderline features (r = .90) and the four subscale (correlations between .81 - .85; Morey, 1991). The PAI-BOR has also been used to detect borderline features in a nonclinical sample of young adults with a mean age of 19 years (Trull, 1995).

Adolescent internalizing and externalizing symptoms. The Teacher Report Form for Ages 6-18 (TRF; Achenbach & Rescorla, 2001) is a 113-item questionnaire

used to measure emotional and behavioral problems in children and adolescents. Teachers scored each item as occurring now or within the past 2 months on a 3-point Likert scale as 0 (*not true*), 1 (*somewhat or sometimes true*), or 2 (*very true or often true*). The TRF yields an Internalizing total score, comprised of the sum of the scores on the Withdrawal, Somatic Complaints, and Anxiety/Depression subscales, and an Externalizing total score, made up of the sum of the scores on the Aggression and Delinquent Behavior subscales. The TRF has revealed high test-retest reliability for both the Internalizing (r = .86) and Externalizing (r = .89) scales in a community sample (Achenbach & Rescorla, 2001). Means were imputed for five children with missing teacher data and were based on the means for each group by gender in the whole sample.

The Youth Self Report for Ages 11-18 (YSR; Achenbach & Rescorla, 2001) is a 113-item questionnaire used to measure emotional and behavioral problems in children and adolescents. Adolescents scored each item as occurring now or within the past 2 months on a 3-point Likert scale as 0 (*not true*), 1 (*somewhat or sometimes true*), or 2 (*very true or often true*). The YSR yields an Internalizing total score, comprised of the sum of the scores on the Withdrawal, Somatic Complaints, and Anxiety/Depression subscales, and an Externalizing total score, made up of the sum of the scores on the Social Problems, Thought Problems, Attention Problems, Aggression Behavior, and Delinquent Behavior subscales. The YSR has revealed high test-retest reliability for both the Internalizing (r = 0.80) and Externalizing (r = 0.89) scales in a community sample (Achenbach & Rescorla, 2001). The YSR was used for post-hoc analyses.

Problem inventory. The Relationship Problem Inventory (Knox, 1971) used to identify issues among marital couples was adapted for use in the current study to

determine topics of disagreement among mother-adolescent dyads. Mothers and adolescents were separately provided with a list of common areas of conflict that arise between parents and adolescents (e.g., friends, choice of clothing, grades) and were asked to identify and mark the issues that cause the most conflict. A research assistant then selected three of the marked topics: one rated by the mother, one rated by the adolescent, and one rated by both the mother and adolescent. For each topic, the mother and adolescent were asked to "try and come up with a solution" for the presented problem and continue talking even if they found a solution. Participants were given 5 minutes to discuss each topic and were videotaped during the discussions.

Maternal psychological control. The Psychological Control Scale–Observer Report (PCS-OBS; Barber, 1996) was used to measure observed maternal psychological control during the mother-adolescent problem discussion task. The PCS-OBS calls for separate ratings for each of the 6 types of psychological controlling behaviors (constraints of verbal expression, love withdrawal, guilt induction, emotional invalidation, erratic emotional behavior, and personal attacks/blame) using a Likert scale from 0 (*Not true*) to 3 (*Very true*). The PCS-OBS was created by Barber (1996) and found to be compatible with an eight-item youth self-report measure of parental psychological control. The PCS-OBS, with slight adaptations, has been used to measure psychological control in research that explored psychological control in relation to autonomy granting (Kunz & Grych, 2013) and attachment (Kerns, Brumariu, & Seibert, 2011). For the current study, in addition to the subtypes of psychological control, a global rating of total psychological control was calculated using the average of the standardized scores of the six subtypes.

Coding. Two coders used the Psychological Control Scale–Observer Report (PCS-OBS; Barber, 1996) to code observed maternal psychological control during the videotaped mother-adolescent problem discussion task. The coders were ignorant of the BPD status of the participants during all coding procedures. Inter-rater reliability was obtained using 25% of the current sample. Scores were generated for each of the six subtypes and an overall measure of psychological control using intraclass correlation coefficients: constraining verbal expressions, $r_i = 0.87$; invalidating feelings , $r_i = 0.98$; personal attack on child, $r_i = 0.91$; guilt induction, $r_i = 0.82$; love withdrawal, $r_i = 0.95$; erratic emotional behavior, $r_i = 0.75$; and overall reliability, $r_i = 0.91$.

CHAPTER III

Results

Prior to testing the main hypotheses, preliminary analyses were conducted to test for group differences on the demographic data. Total family income marginally differed between groups ($t = 1.91$, $p < .10$) and was therefore controlled for when testing group differences. See Table 1 for descriptive statistics for demographic information.

Hypothesis 1

To test the group differences between mothers with BPD and control mothers in their use of psychological control proposed in hypothesis 1, seven analyses of covariance (ANCOVAs) were conducted. Mothers' BPD group status (yes/no) served as the independent variable and maternal total psychological control and psychological control subtypes (constraining verbal expressions, invalidating feelings, personal attack on child, guilt induction, love withdrawal, and erratic emotional behavior) served as dependent variables. Current maternal MDD diagnosis served as covariate, as maternal MDD is often comorbid with BPD and has negative effects on child development. Additionally, family income was also controlled for, as it significantly correlated with maternal BPD.

As predicted, there were significant group differences between mothers with BPD and control mothers in their use of psychological control subtypes as well as overall psychological control, $F(1, 52) = 29.71$, $p < .01$, $\eta^2 = .34$. Overall, mothers with BPD were more likely to use psychologically controlling behaviors with their adolescent offspring than were normative comparisons. This was true for all psychological control subtypes, including constraining verbal expressions, $F(1, 52) = 6.73$, $p < .05$, $\eta^2 = .03$, invalidating feelings, $F(1, 52) = 21.47$, $p < .01$, $\eta^2 = .04$, personal attack on child, $F(1,$

52) = 18.08, $p < .01$, $\eta^2 = .04$, guilt induction, $F(1, 52) = 16.16$, $p < .01$, $\eta^2 = .04$, love withdrawal, $F(1, 52) = 22.52$, $p < .01$, $\eta^2 = .08$, and erratic emotional behavior, $F(1, 52) = 47.63$, $p < .01$, $\eta^2 = .20$. See Table 2 for means and standard deviations as well as eta squared values.

Hypothesis 2

As proposed in hypothesis 2, associations between maternal psychological control and a continuous measure of maternal total borderline features and subtypes were determined by conducting zero-order correlations. As predicted, analyses revealed that total psychological control and all subtypes significantly positively correlated with total maternal borderline features and all subtypes, with two exceptions: the borderline feature subtype of self harm/impulsivity was marginally significantly related to the psychological control subtypes of constraining verbal expressions and personal attack on child. See Table 3 for correlation coefficients, means, and standard deviations.

Hypothesis 3

As proposed in the hypothesis 3, maternal psychological control was further explored in relation to adolescent symptomatology. Zero-order correlations were first conducted between total psychological control and its subtypes and adolescent total borderline features and subtypes. As predicted, total maternal psychological control was significantly associated with total adolescent borderline features as well as the subtype of affective instability. Concerning the subtypes of psychological control, invalidating feelings, personal attack, and love withdrawal were significantly associated with adolescent total borderline features, affective instability, negative relationships, and self harm/impulsivity (with one instance of marginal significance). Erratic emotional behavior

was significantly related to affective instability and total adolescent borderline features. Guilt induction was significantly correlated with affective instability. Constraining verbal expressions was not significantly associated with total borderline features or any subtypes. See Table 4 for correlation coefficients, means, and standard deviations.

Zero-order correlations were next conducted between total psychological control and its subtypes and teacher-reported internalizing and externalizing symptoms. Contrary to expectations, there were no significant associations between maternal psychological controlling behaviors and adolescent externalizing symptoms as reported by teachers. However, teacher-reported adolescent internalizing symptoms were significantly related solely to maternal erratic emotional behavior. See Table 4 for correlation coefficients, means, and standard deviations.

Due to null findings in the relation between maternal psychological control and teacher-reported adolescent internalizing and externalizing symptoms, post-hoc analyses were conducted to distinguish a difference between teacher-reported symptoms and adolescent-reported symptoms. Zero-order correlations were conducted between total psychological control and its subtypes and adolescent-reported internalizing and externalizing symptoms. Adolescent externalizing symptoms were significantly associated with total maternal psychological control and the subtypes of constraining verbal expressions, invalidating feelings, personal attack on child, and love withdrawal, with correlations of marginal significance with guilt induction and personal erratic emotional behavior. Adolescent-reported internalizing symptoms did not correlate with maternal psychologically controlling behaviors. See Table 4 for correlation coefficients, means, and standard deviations.

Zero-order correlations were also conducted for adolescent symptomatology in relation to parental psychological control and its subtypes separated by gender. As expected, girls' total borderline features, as well as subtypes of affective instability and negative relationships, were significantly related to maternal psychological control and its subtypes. In contrast, boys' borderline features and subtypes were not associated with psychological control or any subtypes, with one exception of boys' affective instability significantly relating to maternal love withdrawal. Contrary to expectations that maternal psychological control would associate with girls' internalizing symptoms and boys' externalizing symptoms, a different trend was found. Girls externalizing features as measured by both the teacher and youth reports and were positively associated with maternal psychological control and most of the subtypes. Interestingly, boys' externalizing features measured by youth report positively associated with maternal personal attack. For both genders, there were no significantly correlations between psychological control and internalizing symptoms as measured by teacher and youth reports. See Table 5 for correlation coefficients, means, and standard deviations.

Hypothesis 4

To test hypothesis 4, that total maternal psychological control would mediate the relationship between total maternal borderline features and adolescent symptomatology, mediational analyses were conducted using the Preach and Hayes (2004) bootstrapping method, with 5,000 bootstrap resamples. The analyses were conducted for adolescent outcome variables that were significantly related to maternal psychological control, which included adolescent total borderline features, affective instability, internalizing symptoms (TRF), and externalizing symptoms (YSR). Contrary to predictions, no

significant mediations were found using total psychological control, total maternal borderline features, and adolescent symptomatology. See Table 6 for values of indirect effects.

Hypothesis 5

To test the conditional indirect effects of gender on the mediation models, moderated mediational models were conducted using the Preach and Hayes (2004) bootstrapping method, with 5,000 bootstrap resamples. The same analyses from hypothesis 4 were conducted for the adolescent outcome variables of total borderline features, affective instability, internalizing symptoms (TRF), and externalizing symptoms (YSR), with child gender as the moderator variable. No significant conditional indirect effects were found. See Table 7 for values of conditional indirect effects.

Post-Hoc Gender Analyses

Due to of the lack of significant findings for the conditional indirect effects of gender, post-hoc analyses were conducted to determine if there were gender effects on group differences for psychological control. Independent samples t-tests were conducted to determine gender differences in maternal psychological control within each group as well as the whole sample. In neither the comparison group nor the sample as a whole, means for maternal use of psychological control did not differ significantly for males versus females. In the BPD group, maternal psychological control was significantly higher for females compared to males for total psychological control, $t(26) = 2.36$, $p < .01$; invalidating feelings, $t(26) = 2.16$, $p < .01$; personal attack $t(26) = 2.52$, $p < .10$; and guilt induction, $t(26) = 2.77$, $p < .01$. See Table 8 for means and standard deviations. ANCOVAs were then conducted with the inclusion of an interaction term for adolescent

gender and maternal group status. Results revealed significant adolescent gender-maternal group interactions for group differences in total psychological control, constraining verbal expressions, and personal attack on child, with marginally significant interactions for guilt induction and erratic emotional behavior. See Table 8 for eta-squared values.

A second set of post-hoc analyses explored the correlations between the subscales of the TRF and YSR for internalizing and externalizing symptoms by gender in relation to total psychological control and subtypes. On the TRF, there was only one significant correlation for girls: teacher-reported Withdrawn/Depressed behaviors were positively related to constraining verbal expressions ($r = 0.40$, $p < .05$). For boys, the TRF subscales of Somatic Complaints ($r = .47$, $p < .05$) and Anxious/Depressed behaviors ($r = .40$, $p < .05$), both internalizing symptoms, as well as Aggressive behavior ($r = .43$, $p < .05$) and Rule Breaking behavior ($r = .35$, $p < .10$), externalizing symptoms, were all significantly associated with maternal erratic emotional behavior. On the YSR, two externalizing subscales for girls were significantly related to maternal psychological control and subtypes. Specifically, girls' Rule Breaking was positively associated with total psychological control ($r = .56$, $p < .01$), constraining verbal expressions ($r = .45$, $p < .05$), invalidating feelings ($r = .47$, $p < .05$), personal attack ($r = .55$, $p < .01$), guilt induction ($r = .36$, $p < .10$), love withdrawal ($r = .41$, $p < .05$), and erratic emotional behavior ($r = .53$, $p < .01$). Additionally, girls' Aggressive behavior was marginally correlated to total psychological control ($r = .35$, $p < .10$), constraining verbal expressions ($r = .34$, $p < .10$), guilt induction ($r = .36$, $p < .10$), and erratic emotional behavior ($r = .36$, $p < .10$). On the

YSR, boys' Rule Breaking behaviors were only marginally related to personal attack on the child ($r = .32$, $p < .10$), with no significant subscale for boys on the YSR.

A final set of post-hoc analyses were conducted to examine the indirect effects of maternal psychological control on the relation between maternal borderline features and adolescent symptomatology separately by gender. Analyses were conducted using the Preach and Hayes (2004) bootstrapping method, with 5,000 bootstrap resamples for the adolescent outcome variables of total borderline features, affective instability, internalizing symptoms (TRF), and externalizing symptoms (YSR). No significant indirect effects were found, except for a very small but significant negative indirect effect for total maternal psychological control on the relation between maternal borderline features and boys' internalizing symptoms, as reported by teachers. See Table 9 for values for indirect effects.

CHAPTER IV

Discussion

The current study yielded a number of interesting results. First, overall maternal psychological control and psychological control subtypes were found to be significantly greater among mothers with BPD compared to the control group. Further, findings of significant positive correlations were found between total maternal borderline features and total psychological control, as well as between all borderline features and psychological control subtypes. These correlations reflect that mothers who experience high affective instability, identity disturbance, negative relationships, and self-harming, impulsive behaviors tend to use methods of verbal constraint, invalidation, personal attack, guilt induction, love withdrawal, and erratic emotional behavior to control their adolescent offspring's psychological independence.

The second important set of findings looked at adolescent symptoms in the context of maternal psychological control. Total psychological control was significantly related only to total adolescent borderline features, yet interesting trends were revealed in the relations between subtypes of both psychological control and borderline features. Adolescent affective instability was significantly related to all subtypes of psychological control, with the exception of verbal constraint. Additionally, adolescent negative relationships and self harm/impulsivity were related to maternal invalidating feelings, personal attack, and love withdrawal. Future longitudinal research is needed to investigate the directional effects of these parenting behaviors on adolescent symptomatology and how adolescent behavioral problems might impact parenting practices.

Unexpectedly, maternal erratic emotional behavior was significantly related to teacher-reported adolescent internalizing symptoms but not externalizing symptoms. Interestingly, however, post-hoc analyses revealed maternal psychological control was significantly related to adolescent self-reported externalizing symptoms but not internalizing symptoms. Such discrepancies are often found between reports from various informants (Achenbach, 2006; Grigorenko, Geiser, Slobodskaya, & Francis, 2010). Trends show that teachers usually report more child externalizing symptoms than youths, whereas youths report more internalizing symptoms about themselves than do teachers (Fabrega Jr, Ulrich, & Loeber, 1996; Youngstrom, Loeber, & Stouthamer-Loeber, 2000). However, this is not always the case, as opposite trends, similar to the current findings, have been found (e.g., Stevens, Vollebergh, Pels, & Crijnen, 2005). Such dissimilar findings could be due to a number of factors, including variations in children's functioning in different contexts (Achenbach, 2006; Grigorenko et al., 2010). Additionally, it may be that teachers cannot accurately observe internalizing symptoms such as withdrawal and avoidance.

In the present study, maternal erratic emotional behavior appears to relate to adolescent internalizing behaviors in educational settings, whereas mothers' verbal constraint, invalidation, personal attacks, and love withdrawal relate more to adolescents' externalizing behaviors that might occur at home and in other social or familial contexts. Adolescents may feel that school provides a calm setting for internalization and reflection of their experiences at home as well as time to attempt to understand and predict their mothers' oscillating behaviors and reactions. At home, adolescents who experience a great amount of maternal psychological control may tend to respond with more

externalizing symptoms (e.g., delinquency, overt and relational aggression, hostility, and conduct problems) in an effort to fight for and defend their emerging identity and autonomy in response to intrusion (Hoeve et al., 2009; Little & Seay, 2014). Another possibility for the discrepancy may be that the teachers may not actually know the adolescents well enough to report of symptoms, particularly internalizing problems. The precise reasons for these inconsistencies are unclear, thus further research should investigate adolescents' perceptions about how they visualize and cope with experiences of psychological control.

Because the nonsignificant mediational findings limited the examination of gender as a moderator, post-hoc analyses were conducted to investigate how adolescent gender interacted with maternal BPD and psychological control. The findings indicated maternal use of psychological control differs significantly between the male and female offspring of mothers with BPD compared to normative mothers. Specifically, the use of total maternal psychological control, verbal constraint, and personal attacks on the child were significantly greater among mothers with BPD interacting with their adolescent daughters. Recent research on parenting behaviors of mothers with BPD has focused primarily on the mother-daughter relationship (Whalen et al., 2014; Zalewski et al., 2014), thus it is unclear whether this is currently a common parenting trend among mothers with BPD. Women diagnosed with BPD reported their beliefs about the role of gender in BPD diagnosis, which included women being invalidated and objectified as well as being socialized to be more nurturing and emotional (Goudey, 2014). Further, attitudes of women with BPD towards men tend to differ from the overall female population. Mothers with BPD may attempt to control their daughters' beliefs about men

and relationships in order to protect them from experiencing relational harm. Thus, mothers with BPD may use more psychological control with their daughters to pass down or emphasize the importance of conforming to traditional, submissive female gender roles and use less psychological control with their adolescent sons, who these mothers may respect as independent and even look to for support or advice. Further research should investigate adolescent perceptions of gender roles in the context of maternal BPD.

Interestingly, there were no gender differences for maternal psychological control for the sample as a whole. However, there was an exception for maternal erratic emotional behavior, which was used more frequently with adolescent daughters compared to sons. Erratic emotional behavior is thought to be effective for manipulating the love relationship (e.g., "love-oriented" control) when a parent and child are overly exclusive or enmeshed (Becker, 1964). Mothers with BPD and healthy mothers alike may tend to exhibit more erratic emotional behavior with their daughters when they share a close, intimate relationship. Daughters of mothers with BPD may be more likely to object against or ignore maternal erratic emotional behavior, therefore these mothers may use other behaviors, such as personal attack and verbal constraint, to invalidate and control their daughters.

There are a number of strengths in the current study. First, maternal BPD was measured as both a categorical and continuous variable. The provision of a categorical diagnostic criteria for BPD extends the previous findings of Zalewski et al. (2014), who measured only maternal borderline symptoms. The inclusion of the continuous variable of borderline features also introduces relations between certain behaviors characteristic of BPD. Second, the current study employed an observational measure of psychological

control, which supported findings of Zalewski et al. (2014) based on adolescent self-reported parental behaviors. The distinction and measurement of subtypes of psychologically controlling behaviors also introduces novel relations between specific maternal parenting behaviors and adolescent behavioral problems. Third, the use of multi-informant data for adolescent internalizing and externalizing symptoms provided contrasting findings that may provide implications for understanding adolescent behaviors in various contexts. Finally, this study explored the associations between maternal psychological control and adolescent borderline features, which provides further support for the presence of invalidating environments in the context of BPD (Linehan, 1993).

The current study includes a number of limitations. First, the sample size is limited, with only 28 members of each test group, possibly making it more difficult to find significant effects due to low power. Second, and specifically related to the lack of mediational findings, longitudinal data are needed to further explore the impact of maternal psychological control on development of adolescent symptoms in the context of maternal borderline features. Third, while maternal MDD was controlled for, other disorders known to be comorbid with BPD were not included as covariates (e.g., anxiety disorders, other mood disorders, post-traumatic stress disorder, substance use disorders, and eating disorders; Zanarini et al., 1998). Lastly, the current sample had a low percentage of participants from minority backgrounds. Further research should include ethnically diverse samples to determine the generalizability of the current findings to different populations.

Although the current findings are cross-sectional in nature, they may have important implications for treatment. Presently, mothers' psychologically controlling behaviors were related to adolescent externalizing and internalizing symptoms and borderline features, particularly adolescent affective instability. In line with the biosocial theory (Linehan, 1993) and the concept of intergenerational transmission of BPD, parental invalidation may increase the risk for developing emotional dysregulation among children of mothers with BPD. Teaching these mothers to provide consistency in monitoring, affect, and support and to be aware of children's emotional cues and boundaries may provide more resources for adolescents at risk for developing BPD to develop emotional regulation skills and autonomy and independence as they move toward adulthood (Bartsch, Roberts, Davies, & Proeve, 2015). Clinical interventions and longitudinal studies focused on maternal validation among samples of adolescents at risk or diagnosed with BPD found that supportive, validating parenting behaviors related to decreased adolescent depression and BPD severity and increased self-esteem and relational satisfaction (Fruzzetti, Shenk, & Hoffman, 2005; Whalen et al., 2014). In sum, though further intervention studies are needed, teaching mothers with BPD to implement healthy parenting techniques might decrease the use of invalidating and controlling parenting behaviors, which may in turn decrease adolescent behavioral problems and attenuate the development or intensification of affective instability and other borderline features.

Conclusion

The nature of BPD and its features, such as behavioral and emotional dysregulation, presents significant challenges in parenting which consequently place the

offspring of mothers with BPD at risk for behavioral problems throughout development (Barnow et al., 2006). The current findings reflect that mothers with BPD use more psychologically controlling behaviors with their adolescents than healthy comparisons, which in turn relate to adolescent borderline features and internalizing and externalizing symptoms. Mothers with BPD may struggle in understanding their adolescents' feelings as well as regulating and recognizing their own emotions and past invalidating experiences (Steep et al., 2011). This misunderstanding may lead mothers with BPD to respond to their offspring with inconsistency, erratic emotional behavior, guilt induction, love withdrawal, invalidation, and constraint in an attempt to avoid being abandoned by their increasingly independent adolescent offspring, potentially setting the stage for the development of similar problems among their children.

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Appendices

Table 1. *Demographic Information*

Variable	Whole sample *N* = 56 *M* (*SD*)	BPD group *n* = 28 *M* (*SD*)	Comparison group *n* = 28 *M* (*SD*)
Adolescent age (years)	15.41 (1.19)	15.22 (1.13)	15.61 (1.23)
Family yearly income ($)	26,876 (17,119)	22,615 (12,250)	31,138 (20,230)
Number of adults in home	1.80 (0.72)	1.68 (0.67)	1.93 (0.77)
Number of children in home	2.36 (1.53)	2.18 (1.36)	2.54 (1.69)
Adolescent gender (girls)	50%	50%	50%
Adolescent ethnic minority background	7%	4%	11%
Adolescent Hispanic	4%	4%	4%
Mother marital status (single)	30%	32%	29%

Note. BPD = borderline personality disorder

Table 2. *Group Differences on Mothers' Psychological Control Total and Subtypes Controlling for Current Maternal Major Depressive Disorder and Family Income*

Variable	BPD (n = 28) M (SD)	Comparisons (n = 28) M (SD)	F(1, 52)	η^2
Total standardized psychological control	2.65 (3.25)	-2.65 (3.36)	29.71**	0.34
Constraining verbal expressions	2.00 (0.94)	1.21 (.88)	6.73*	0.03
Invalidating feelings	2.64 (0.56)	1.64 (0.87)	21.47**	0.04
Personal attack on child	2.40 (0.74)	1.54 (0.74)	18.08**	0.04
Guilt induction	2.54 (0.84)	1.61 (0.96)	16.16**	0.04
Love withdrawal	2.14 (0.85)	0.89 (0.83)	22.52**	0.08
Erratic emotional behavior	2.04 (1.04)	0.32 (0.48)	47.63**	0.20

Note. BPD = borderline personality disorder; η^2 = eta squared; * $p \leq .05$; ** $p \leq .01$.

Table 3. *Correlations of Psychological Control and Maternal Borderline Features*

Variable	1	2	3	4	5	6	7	*M* (*SD*)
1. Total psychological control								2.65 (4.23)
2. Constraining verbal expressions	.76**							1.61 (.98)
3. Invalidating feelings	.83**	.48**						2.14 (.88)
4. Personal attack	.83**	.53**	.61**					1.96 (.85)
5. Guilt induction	.82**	.58**	.64**	.62**				2.07 (1.01)
6. Love withdrawal	.85**	.59**	.69**	.66**	.54**			1.52 (1.04)
7. Erratic emotional behavior	.74**	.58**	.59**	.57**	.59**	.63**		1.18 (1.18)
Maternal borderline features								
Affective instability	.60**	.36**	.54**	.49**	.48**	.57**	.66**	7.05 (5.46)
Identity disturbance	.53**	.28*	.53**	.46**	.38**	.48**	.60**	6.54 (5.34)
Negative relationships	.53**	.30*	.53**	.43**	.42**	.46**	.56**	7.77 (5.05)
Self harm/impulsivity	.42**	.24†	.43**	.24†	.29*	.48**	.42**	4.05 (4.35)
Total	.57**	.33*	.56**	.45**	.44**	.55**	.63**	25.41 (18.45)

Note. † $p < .10$; * $p \leq .05$; ** $p \leq .01$.

Table 4. *Correlations of Maternal Psychological Control and Adolescent Outcomes*

Variable	1	2	3	4	5	6	7	*M* (*SD*)
Adolescent borderline features								
Affective instability	.42**	.18	.41**	.38**	.32*	.44**	.36**	7.54 (4.35)
Identity disturbance	.21	.06	.21	.24†	.21	.14	.14	7.93 (3.77)
Negative relationships	.25†	.08	.29*	.28*	.09	.27*	.23†	7.42 (3.73)
Self harm/impulsivity	.24†	.06	.24†	.31*	.06	.31*	.12	5.18 (3.97)
Total	.35**	.12	.36**	.38**	.21	.37**	.27*	28.07 (12.89)
Teacher Report Form								
Internalizing symptoms	.16	.21	.06	.16	.11	.11	.27*	54.21 (10.14)
Externalizing symptoms	.20	.15	.06	.23†	.09	.25†	.21	52.88 (8.76)
Youth Report Form								
Internalizing symptoms	.07	.07	.05	.00	.05	.12	.05	56.09 (12.24)
Externalizing symptoms	.36**	.27*	.28*	.39**	.22†	.31*	.25†	56.45 (10.32)

Note. † $p < .10$; * $p \leq .05$; ** $p \leq .01$.
Variables: 1 total psychological control; 2 constraining verbal expressions; 3 invalidating feelings; 4 personal attack; 5 guilt induction; 6 love withdrawal; 7 erratic emotional behavior.

Table 5. *Correlations of Psychological Control and Adolescent Outcomes by Gender*

Variable		1	2	3	4	5	6	7	*M* (*SD*)
Adolescent borderline features									
Affective instability	Girls	.47*	.27	.42*	.48**	.44*	.39*	.33†	8.32 (4.55)
	Boys	.34†	.14	.36†	.23	.11	.47*	.36†	6.75 (4.08)
Identity disturb-ance	Girls	.34†	.27	.24	.36†	.37†	.21	.31	8.93 (3.40)
	Boys	.04	-.06	.14	.11	-.02	.04	-.09	6.93 (3.91)
Negative relation-ships	Girls	.39*	.26	.38*	.49*	.26	.25	.37†	8.71 (4.06)
	Boys	-.03	-.06	.07	-.04	-.32	.24	-.08	6.14 (2.90)
Self harm/ impul-sivity	Girls	.23	.07	.17	.34†	.11	.32†	.05	5.32 (4.58)
	Boys	.23	.05	.35†	.26	-.02	.30	.22	5.04 (3.33)
Total	Girls	.44*	.26	.37†	.50**	.36†	.37†	.31	31.29 (13.59)
	Boys	.20	.03	.29	.18	-.06	.33†	.14	24.86 (11.44)
Teacher Report Form									
Internaliz-ing symptoms	Girls	.23	.31	.03	.29	.11	.21	.27	52.63 (10.17)
	Boys	.13	.07	.14	.05	.18	.04	.34†	55.78 (10.03)
Externaliz-ing symptoms	Girls	.31	.26	.23	.36†	.06	.41*	.14	51.98 (8.97)
	Boys	.09	.01	-.10	.10	.17	.13	.34†	53.78 (8.62)
Youth Report Form									
Internaliz-ing symptoms	Girls	.10	.15	.08	.01	.22	-.06	.16	56.39 (11.01)
	Boys	.05	.02	.02	-.01	-.11	.27	-.05	55.79 (13.57)

Note. † $p < .10$; * $p \leq .05$; ** $p \leq .01$.
Variables: 1 total psychological control; 2 constraining verbal expressions; 3 invalidating feelings; 4 personal attack; 5 guilt induction; 6 love withdrawal; 7 erratic emotional behavior.

Table 5. *Continued.*

Externaliz-ing symptoms	Girls	.46*	.35†	.39*	.44*	.46*	.31	.41*	55.86 (7.89)
	Boys	.32†	.23	.24	.39*	.10	.34	.17	57.04 (12.42)

Note. † $p < .10$; * $p \leq .05$; ** $p \leq .01$.
1 total psychological control; 2 constraining verbal expressions; 3 invalidating feelings; 4 personal attack; 5 guilt induction; 6 love withdrawal; 7 erratic emotional behavior.

Table 6. *Indirect Effects of Maternal Borderline Features on Adolescent Symptomatology Through Total Maternal Psychological Control*

Adolescent dependent variable	Effect in sample data	Estimated effect in population using bootstrapping	Bias	Standard Error	Confidence interval
Total borderline features	0.05	0.05	0.00	0.07	-0.06 to 0.21
Affective instability	0.01	0.01	0.00	0.02	-0.03 to 0.05
Internalizing symptoms (TRF)	-0.04	-0.04	-0.00	0.05	-0.14 to 0.07
Externalizing symptoms (YSR)	0.07	0.07	0.00	0.60	-0.03 to 0.19

Table 7. *Conditional Indirect Effects of Maternal Borderline Features on Adolescent Symptomatology Through Total Maternal Psychological Control*

Adolescent dependent variable	Estimated effect in population using bootstrapping	Standard Error	Confidence interval
Total borderline features	-0.01	0.03	-0.13 to 0.03
Affective instability	-0.00	0.01	-0.03 to 0.02
Internalizing symptoms (TRF)	0.01	0.03	-0.03 to 0.11
Externalizing symptoms (YSR)	-0.02	0.04	-0.16 to 0.03

Table 8. *Post-Hoc Interactions between Maternal Group Status and Adolescent Gender*

	BPD (n = 28) M (SD)		Comparisons (n = 28) M (SD)			
Variable	Female (n = 14)	Male (n = 14)	Female (n =14)	Male (n =14)	F (1, 52)	η^2
Total standardized psychological control	3.99 (1.81)	1.31 (3.84)	-3.15 (3.48)	-2.15 (3.28)	5.47*	0.06
Constraining verbal expressions	2.14 (0.86)	1.86 (1.03)	0.86 (0.66)	1.57 (0.94)	5.57*	0.02
Invalidating feelings	2.86 (0.36)	2.43 (0.65)	1.64 (0.93)	1.64 (0.84)	1.61	0.00
Personal attack on child	2.71 (0.47)	2.07 (0.83)	1.36 (0.74)	1.71 (.73)	6.50*	0.01
Guilt induction	2.93 (0.27)	2.14 (1.03)	1.57 (1.09)	1.64 (0.84)	3.42†	0.01
Love withdrawal	2.29 (0.73)	2.00 (0.96)	1.00 (0.96)	0.79 (0.70)	0.243	0.00
Erratic emotional behavior	2.36 (0.84)	1.71 (1.14)	.36 (0.50)	0.29 (0.47)	3.02†	0.01

Note. BPD = borderline personality disorder; η^2 = eta squared; * $p \leq .05$.

Table 9. *Indirect Effects of Maternal Borderline Features on Adolescent Symptomatology Through Total Maternal Psychological Control by Gender*

Adolescent dependent variable		Effect in sample data	Estimated effect in population using bootstrapping	Bias	Standard Error	Confidence interval
Total borderline features	Girls	0.08	0.08	0.01	0.11	-0.08 to 0.39
	Boys	-0.05	-0.04	0.01	0.09	-0.28 to 0.08
Affective instability	Girls	0.02	0.02	0.04	0.03	-0.03 to 0.10
	Boys	-0.02	-0.02	0.00	0.03	-0.01 to 0.02
TRF Internalizing symptoms	Girls	0.04	0.05	0.02	0.09	-0.11 to 0.27
	Boys	-0.12	-0.13	-0.01	0.08	-0.34 to -0.01
YSR Externalizing symptoms	Girls	0.06	0.06	0.01	0.06	-0.04 to 0.21
	Boys	0.10	0.10	0.01	0.11	-0.09 to 0.37

APPENDIX A

Psychological Control Scale–Observer Report (PCS-OBS; Barber, 1996)

Use the following scale for items below:
0 = Not true; 1 = Somewhat true; 2 = True; 3 = Very true

1. *Constraining Verbal Expressions*
Family members prevented or interfered with another family member's talking by behaviors such as: changing the subject, interrupting, speaking for the other, lecturing, switching topics, dominating the conversations, asking leading questions, or answering their own questions. Family members showed disinterest in what another family member had to say by ignoring the other's comments or by physical postures that communicate disinterest (e.g., looking or facing away from the child).

2. *Invalidating Feelings*
Family members invalidated the feelings of another family member by discounting, misinterpreting, or assigning a value (e.g., good/bad, right/ wrong) to the feelings that were being expressed. Family members engaged in mind reading (e.g., say they know what the other is thinking or feeling). Family members were sarcastic or teasing when responding to the feelings being expressed.

3. *Personal Attack on Child*
Family members attacked the worth or place in the family of another family member by reminding the other of his or her responsibilities to the family, saying the other is not a responsible family member, or questioning the other's loyalty to the family. Family members brought up another member's past mistakes or embarrassing behaviors as evidence of the accused member's lack of worth. Family members blamed another for the other's own or the family's problems. Family members spoke in a very condescending *or* patronizing way to another member or acted as if they were a therapist to the other member.

4. *Guilt Induction*
Family members laid guilt trips on another family member by pointing out that another's behavior had a negative emotional impact on a family member, such as making them worry, feel sad or depressed, or lose self-esteem. Family members tried to evoke sympathy from another by enumerating all of the things they have done for the other. Family members played the role of martyr or continually blamed themselves for the other's problems. Family members said that if the other really cared for them, she or he would do or be what the family member expected.

5. *Love Withdrawal*
Family members threatened the withdrawal of their love or attention if another family member did not do or become what the other expected. Family members diverted their gaze, turned away, made a displeased facial expression, or physically left the interaction

when another family member expressed something contrary to their expectations.

6. *Erratic Emotional Behavior*
Family members showed erratic emotional behavior in interaction with another family member by vacillating between caring and attacking expressions.

Vita

Rebecca Mahan was born in Memphis Tennessee and grew up in Fayetteville, Arkansas. She attended the University of Arkansas, where she obtained her B.A. in psychology. Upon graduating, she attended graduate school at the University of Tennessee, where she is now pursuing her Ph.D. in clinical psychology under the mentorship of Dr. Jenny Macfie. She is investigating the role of maternal Borderline Personality Disorder in parenting and adolescent outcomes. Rebecca hopes to pursue a clinical career in therapy and psychological assessment.